## **Abstract**

Fluoranthene derivatives of the general formula I

$$X-\left(\begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array}\right)_{n}^{R^{4}}$$

$$(I)$$

where the symbols have the following meanings:

10

15

20

25

n

 $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  are each hydrogen, alkyl, an aromatic radical, a fused aromatic ring system, a heteroaromatic radical or  $-CH=CH_2$ , (E)- or (Z)-CH=CH-C<sub>6</sub>H<sub>5</sub>, acryloyl, methacryloyl, methylstyryl, -O-CH=CH<sub>2</sub> or glycidyl;

where at least one of the radicals R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> is not hydrogen;

X is an alkyl radical, an aromatic radical, a fused aromatic ring system, a heteroaromatic radical or a radical of the formula (I')

$$\mathbb{R}^3$$
  $\mathbb{R}^5$   $\mathbb{R}^5$ 

or an oligophenyl group;

is from 1 to 10 or, in the case of X = oligophenyl group, 1-20;

with the proviso that  $R^1$ ,  $R^2$ ,  $R^3$  and X are not at the same time phenyl when  $R^4$  and  $R^5$  are hydrogen. Furthermore, the invention relates to a process for preparing them and the use of fluoranthene derivatives as emitter molecule in organic light-emitting diodes (OLEDs), a light-emitting layer comprising the fluoranthene derivatives of the invention as emitter molecules, an OLED comprising the light-emitting layer of the invention and devices comprising the OLED of the invention.